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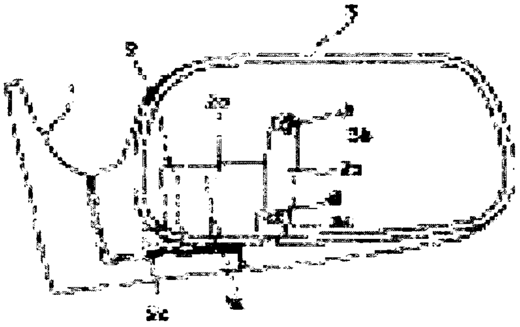
(54) FOLDING DOOR MIRROR FOR AUTOMOBILE AND VISOR MOUNTING MEMBER

(57)Abstract:

PURPOSE: To secure a visor mounting member to a visor which can use the same visor mounting member even if its shape is changed and which is so constructed as to be secured to the visor mounting member being rotatably supported at a fulcrum shaft with which a stay to be secured to the vehicle body is provided.

CONSTITUTION: A visor 3 is attached to upper A and lower B points near the axis of rotation of the visor 3, and a visor mounting member 2 is attached to at least one point around a fulcrum shaft 1a inside an opening that is formed in the lower surface of the visor 3 to pass the fulcrum shaft through it, and the visor mounting member 2 consists of a bearing portion 2a and mounting portions 2b, 2c and is miniaturized.



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1. This document has been translated by computer.So the translation may not reflect the original precisely.
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3.In the drawings, any words are not translated.

[Claim(s)]

[Claim 1] Stay fixed to the body (1, 20, 41) The bearing which fits into the rocking lever shaft (1a, 21, 44) extended up and down along the side window side of the body which this stay (1, 20, 41) has possible [rotation] (2a, 23b, 29, 45) Two places which are the collapse formula door mirrors for automobiles equipped with the above, and are mutually located up and down near the center of rotation of the above-mentioned visor (3 24) (A, B), At least one place (C) of the circumference of the rocking lever shaft (1a) in the above-mentioned opening (3a) is characterized by being constituted as an attaching position of the above-mentioned visor (3 24) and a visor attachment member (2, 22, 40).

[Claim 2] The bearing which fits into the rocking lever shaft (1a, 21, 44) extended up and down along the side window side of the body which the stay (1, 20, 41) fixed to the body has possible [rotation] (2a, 23b, 29, 45) The attachment section for surrounding a mirror main part (4) from a tooth-back side, and fixing a wrap visor (3 24) (2b, 2c, 30a, 30b, 43a, 43b) the visor attachment equipped with the above -- the attaching hole (A, B) formed in the direction which carries out an abbreviation rectangular cross with this center of rotation at two places which are members and are mutually located up and down near the center of rotation of the above-mentioned visor (3 24) -- having -- this center of rotation -- at least one place of the side -- this center of rotation and abbreviation -- it is characterized by having the attaching hole (C) formed in the parallel direction

[Claim 3] While the above-mentioned visor attachment member (22) is equipped with this soma (23) which has the bottom wall (23b) connected [circumference / of the above-mentioned rocking lever shaft (21)] at the soffit of the located peripheral wall (23a) and this peripheral wall (23a), the above-mentioned bearing (23b, 29b) is formed in this soma (23) of this. the visor attachment according to claim 2 whose attachment section (30a) containing the two above-mentioned attaching holes (A, B) extends in the vertical direction on the outside of the above-mentioned peripheral wall (23a), and is further characterized by having the reinforcing rib (31) which projects into this above-mentioned soma (23) along with the above-mentioned attachment section (30a) -- a member

[Claim 4] the visor attachment according to claim 2 characterized by having had wrap covering (25) and forming the hook for electric wire maintenance (34) in the upper surface of this covering (25) in this above-mentioned soma (23) -- a member

[Claim 5] While the above-mentioned visor attachment member (40) is equipped with this soma (42) which has the bottom wall (42b) connected [circumference / of the above-mentioned rocking lever shaft (44)] at the soffit of the located peripheral wall (42a) and this peripheral wall (42a), the above-mentioned bearing (45) is formed in this soma (42) of this. the visor attachment according to claim 2 characterized by forming a drain hole (42c) in the bottom wall (42b) of this above-mentioned soma (42) -- a member

[Detailed Description of the Invention]

[0001]

[Industrial Application] this invention relates to the visor attachment member holding the visor which is casing of a mirror main part while being supported by the rocking lever shaft of the stay fixed to the collapse formula door mirror for automobiles, and the body possible [rotation].

[0002]

[Description of the Prior Art] The outline structure of the conventional collapse formula door mirror is shown in drawing 10 and drawing 11 . The front view in the state where drawing 10 removed a mirror main part and its angle adjustment mechanism, and drawing 11 are bottom plan views. rocking lever shaft 11a of the stay 11 generally mostly extended up and down along a side window side in the conventional collapse formula door mirror so that it may illustrate, and visor attachment -- fitting with bearing 12a formed in the member 12 -- visor attachment -- a member 12 -- stay 11 -- receiving -- rotation -- possible -- equipping -- this visor attachment -- a visor 13 is fixed to a member 12 even when external force is added, in order to make it torsion not occur generally since the visor 13 is formed by synthetic resin and tends to be twisted alone -- visor attachment of metal [visor / 13] -- it is fixed by a total of four places (13c and 13d) to the member 12 two vertical 13a, 13b, and two upper and lower sides of axis-of-rotation approach of outside edge approach in addition, this composition shows to drawing 4 -- as -- the angle adjustment mechanism 15 of the mirror main part 14 -- visor attachment -- it is fixed to attachment section 12b of a member 12

[0003]

[Problem(s) to be Solved by the Invention] By the way, usually, when a visor 13 changes the design of vehicles, configurations differ. the conventional structure on the other hand -- visor attachment -- since a member 12 is a comparatively big member which spreads from rocking lever shaft 11a of stay 11 to the attaching positions 13a and 13b of the outside edge approach of a visor 13, if the configuration of a visor 13 changes -- visor attachment -- the member 12 also newly needed to be designed That is, it was difficult to share a visor attachment member by the visor from which a configuration differs with the conventional attachment structure. Moreover, when a visor attachment member is only formed small, it can be prevented that a visor can be twisted as mentioned above.

[0004] Therefore, the technical technical problem which should solve this invention is being able to use in common easily, even if the configuration of a visor changes, offering the visor attachment member of the structure torsion of a visor being prevented moreover, and offering the collapse formula door mirror equipped with this visor attachment member further.

[0005]

[Means for Solving the Problem and its Function and Effect] The bearing which fits in possible [the rotation to the rocking lever shaft extended up and down along the side window side of the body which the stay fixed to the body has] according to this invention in order to solve an above-mentioned technical technical problem, It has the attachment section for surrounding a mirror main part from a tooth-back side, and fixing a wrap visor. To furthermore, two places mutually located up and down near the center of rotation of a visor It has the attaching hole formed in the direction which carries out an abbreviation rectangular cross with the center of rotation. rather than the center of rotation to at least one place of the side the center of rotation and abbreviation -- the visor attachment member characterized by having the attaching hole formed in the parallel direction is offered, and the collapse formula door mirror for automobiles with which the visor and the visor attachment member were connected by the three places is further offered using this visor attachment member

[0006] In the above-mentioned composition a visor and a visor attachment member It is fixed by two places located up and down near the center of rotation, and at least one place of the circumference of the rocking lever shaft in opening. Since it is not fixed in the position of the outside edge approach of a visor unlike the conventional composition, a visor attachment member can be formed as a comparatively small member from the bearing which fits into the rocking lever shaft of stay, and the portion located in opening near this bearing. Therefore, even when the configurations of a visor differ, it becomes easy to share the same visor attachment member. In addition, what is necessary is just to fix the angle adjustment mechanism of a mirror to a visor directly in this case.

[0007] Moreover, although not fixed in the position of the outside edge approach of a visor instead, since it is fixed in the position in opening, a visor attachment member and a visor can fully prevent generating of torsion of a visor, even if external force is added.

[0008] While forming as a thing equipped with this soma which has the bottom wall which connects [circumference / of a rocking lever shaft] a visor attachment member in the above-mentioned composition at the located peripheral wall and its soffit It is desirable to form a bearing in this soma of this, to form the attachment section containing the two above-mentioned attaching holes so that it may extend in the vertical direction on the outside of a peripheral wall, and to form further the reinforcing rib which projects into this soma along with the attachment section.

[0009] thus -- if constituted, since the reinforcing rib which is formed in a form like a cylinder where this soma plugged up the end from the peripheral wall and the bottom wall, and projects inside this soma from the attachment section will be formed, even if it makes the attachment section smaller -- visor attachment -- since sufficient intensity as the whole member is obtained, it becomes easier to carry out common-use-izing when the configurations of a visor differ, and prevention of torsion of a visor

[0010] Moreover, in the above-mentioned composition, it is desirable to form wrap covering for this soma and to form the hook for electric wire maintenance in the upper surface of this covering. Usually, although the electric wire to the mirror angle adjustment mechanism extended from the body side is connected [be / under / of a rocking lever shaft / passing / it] to a mirror angle adjustment mechanism Since the visor attachment member and the angle adjustment mechanism are constituted on another object in the above-mentioned composition, This electric wire tends to become long by the relation with the attachment workability of each mechanism to a visor, if it remains as it is, an electric wire results ill-behaved within a visor, it bites at the time of operation of an angle adjustment mechanism, or there is a possibility of carrying out. However, according to the above-mentioned composition, it can prevent that stop an electric wire by hook and such a problem arises in ****'s.

[0011] Moreover, in the above-mentioned composition, it is desirable to form a drain hole in the bottom wall of this soma. Thus, if constituted, it can prevent that water collects into this soma which became tubed [with a bottom]. Therefore, it can prevent that a mechanism element rusts or a malfunction arises owing to rust.

[0012]

[Example] Below, the collapse formula door mirror for automobiles concerning the 1st example of this invention shown in drawing 1 and drawing 2 is explained in detail.

[0013] The front view in which drawing 1 shows the outline composition of this door mirror, and drawing 2 are bottom plan views, and show drawing 1 in the state except a mirror main part and its angle adjustment mechanism. it illustrates -- as -- visor attachment -- a member 2 is the structure where the attachment sections 2b and 2c were formed in bearing 2a which fits into rocking lever shaft 1a formed in the stay 1 fixed to the body, and the stand (not shown) fixed possible [rotation] in one Attachment section 2b has attaching holes (attaching position) A and B in two places near the center of rotation of a visor 3 specifically located up and down more nearly mutually [in the outside of the body] than rocking lever shaft 1a. moreover, attachment section 2c -- the inferior surface of tongue of a visor 3 -- visor attachment -- the surroundings of rocking lever shaft 1a in opening 3a formed with the size which can let a member 2 pass from a lower part -- it specifically has one attaching hole (attaching position) C in one place of body approach rather than rocking lever shaft 1a

[0014] on the other hand -- a visor 3 -- visor attachment -- it has the attachment sections 3b, 3c, and 3d by which the tapped hole was formed in the position corresponding to each attaching holes A, B, and C of a member 2 and the visor 3 -- visor attachment -- in these three places, it is attached on a non-illustrated screw to a member 2 In addition, boss 3e for attaching the angle adjustment mechanism 5 of the mirror main part 4 is also formed in the visor 3, and the angle adjustment mechanism 5 is directly attached in a visor 3.

[0015] this example -- setting -- a visor 3 and visor attachment -- a member 2 is located up and down near the center of rotation of a visor 3 -- with A and B two places Since it is fixed by one place C in opening and fixed in the position of the outside edge approach of a visor 3, as shown in drawing visor attachment -- a member 2 can be formed as a comparatively small member from the attachment sections 2b and 2c of bearing 2a which fits into rocking lever shaft 1a of stay 1, this bearing 2a, and one Therefore, even when the configurations of a visor differ, it becomes easy to share the same visor attachment member.

[0016] on the other hand -- visor attachment -- although not fixed in the position of the outside edge approach of a visor 3 instead, since it is fixed in the surrounding position of rocking lever shaft 1a in opening 3a, a member 2 and a visor 3 can fully prevent torsion of a visor 3, even if external force is added In addition, although the attaching position in opening 3a can prepare [one place or] two or more places in arbitrary positions if it is in opening 3a, if it is made into the position by the side of the body like [a / rocking lever shaft 1] especially this example, since it can take the interval of attaching positions A and B and an attaching position C large enough, it can prevent at least one torsion of a visor certainly.

[0017] Next, the 2nd example shown in drawing 3 - drawing 6 is explained. the stand 20 where this example is fixed to stay (not shown), and visor attachment -- it is the example constituted as a visor drive unit which attached the member 22 and built the drive into the interior, and the front view of a visor drive unit and drawing 4 of drawing 3 are the plugging charts in the door mirror for which the IV-IV line cross section (an internal mechanism is omitted) of drawing 3 and drawing 5 used the cross section of a visor drive unit for, and drawing 6 used this visor drive unit

[0018] visor attachment of this example -- a member 22 has this tubed soma 23 with a bottom which consists of peripheral wall 23a located in the circumference of the rocking lever shaft 21 really formed in the stand 20, and bottom wall 23b formed in the soffit section, and the drive for driving a visor 24 in this soma 23 of this is contained Moreover, this soma 23 attaches and requires covering 25 for the purpose of waterproofing to a drive.

[0019] visor attachment -- bearing hole 23c is formed in bottom wall 23b of a member 22, and lower shell insertion of the rocking lever shaft 21 of a stand 20 is carried out at this bearing hole 23c A rocking lever shaft 21 is equipped with the drive gear 26 improper [rotation], and output rotation of a motor 28 is transmitted through the reduction gear train 27 to this gear 26. a motor 28 -- visor attachment -- it is attached in the motor base 29 fixed to a member 22, and the motor base 29 has fitted in with the upper-limit section of a rocking lever shaft 21 therefore, visor attachment -- bottom wall 23b of a member 22 and the motor base 29 serve as a bearing to a rocking lever shaft 21

[0020] although according to this composition turning effort is transmitted to a gear 26 when a motor 28 is started, in order that a gear 26 may not rotate -- reverse -- a motor 28 -- a rocking lever shaft 21 -- as a center -- circling -- it -- following -- visor attachment -- a member 22 will rotate with a visor 24 In addition, although the moderation mechanism which enables operation of a visor 24 for failure prevention when rotation of a visor 24 is prevented by a certain factor at the time of a drive or external force which turns a visor 24 while not operating the drive is added is prepared in it while holding the state where the visor 24 was stopped in the predetermined position to this drive, the explanation about the detail is omitted here.

[0021] thus, a stand 20 fixes the constituted visor drive unit to stay -- having -- visor attachment -- a visor 24 is fixed to a member 22 like the 1st example Attachment section 30a to a visor 24 has extended in the vertical direction like the 1st example on the outside of this soma 23, and attaching holes A and B are formed in the upper part and lower part. Moreover, the attaching hole C is formed in attachment section 30b like the 1st example.

[0022] The reinforcing rib 31 which projects into this soma 23 along with this attachment section 30a is formed in attachment section 30a. while avoiding interference with the angle adjustment mechanism 32 by forming the reinforcing rib 31 inside because there is fear of interference, if the angle adjustment mechanism 32 is arranged on the outside of attachment section 30a and attachment section 30a is enlarged, and forming inside -- visor attachment -- a member -- it is made to secure sufficient intensity of 22 the very thing

[0023] On the other hand, in order to supply power to a motor 28, the electric wire 33 connected to the dc-battery power supply (not shown) prepared in the interior of the body is connected [be / under / of a rocking lever shaft 21 / passing / it] to the motor 28. a purpose [supply / power / in order are electric and to perform angle adjustment of a mirror main part / on the other hand, / to the angle adjustment mechanism 32] -- carrying out -- electric wire 33a -- visor attachment -- it is drawn from a member 22 outside and connects with the angle adjustment mechanism 32 With the composition attached in a visor 24 separately [an angle adjustment mechanism], a visor attachment member (visor drive) like this example If it will become difficult to attach both mechanisms in order if electric wire 33a passing through between both mechanisms is short, and electric wire 33a is lengthened conversely Although a possibility of electric wire 33a moving in a visor 24, or biting between mirror main parts at the time of the operation of an angle adjustment mechanism is after attaching both mechanisms Hook 34 is formed in the upper surface of the covering 25 which has a comparatively big space between visors 24, and it is made to stop electric wire 33a on this hook 34 in this example. It can prevent that electric wire 33a results ill-behaved, and becomes the hindrance of normal operation of the angle adjustment mechanism 32, preventing that the workability [visor] of attachment becomes bad by carrying out like this.

[0024] Next, the 3rd example shown in drawing 7 -9 is explained. the visor attachment member at the time of constituting this example so that storing operation of a visor may be performed manually -- being related -- drawing 7 -- visor attachment -- the plan and drawing 9 of the front view in the state where the member 40 and the stand 41 were attached, and drawing 8 are the IX-IX line cross sections of drawing 7

[0025] this visor attachment -- the member 40 consists of attachment section 43b which projected the upper-limit section to the side by the shape of a cylinder from the soffit of this soma 42 which consists of bottom wall it connected [bottom wall / soffit / peripheral wall 42a and the soffit / of the configuration cut off aslant] 42b, and the attachment section 43a which extends up and down on the outside of this soma 42 of this and this soma 42 attachment section 43a -- two places of the upper and lower sides -- attaching holes A and B -- having -- attachment section 43b -- this visor attachment -- it is formed in a bilateral symmetry at two places, and attaching holes C1 and C2 are also formed in two places so that a member 40 can be shared by the door mirror on either side

[0026] The rocking lever shaft 44 of a stand 41 carried out lower shell penetration of the bottom wall 42b of this soma 42, and is extended upwards, a bearing 45 is formed in the inner circumference marginal part of bottom wall 42b, and the circumference is equipped with the spring 46. and this visor attachment -- although not illustrated between the base of a member 40, and the upper surface of a stand 41, the conventionally well-known moderation (it consists of a small salient formed in one side and a crevice formed in another side so that this salient might fit in in a predetermined position) for holding the state where the visor was stopped in the predetermined position is constituted Moreover, the hook 48 for stopping an electric wire 47 is formed in the upper part of attachment section 43a.

[0027] forming this soma 42 in tubed in the above-mentioned composition -- visor attachment -- although sufficient intensity of a member 40 was made to be obtained, if it remained as it is, although it formed in tubed therefore, there is a possibility that water may collect into it Since there is a possibility that an inner mechanism element may rust when it does so, drain hole 42c is formed in bottom wall 42b of this soma 42 in this example. thus, the visor attachment which is small and has intensity of enough since **** can be prevented by forming drain hole 42c -- it becomes utilizable [a member]

[Brief Description of the Drawings]

[Drawing 1] It is the front view showing the outline composition of the door mirror concerning the 1st example of this invention.

[Drawing 2] It is the bottom plan view of the door mirror of drawing 1 .

[Drawing 3] It is the front view of the visor drive unit which attached the visor attachment member concerning the 2nd example, and the stand.

[Drawing 4] It is the IV-IV line cross section of drawing 3 which omitted the internal mechanism.

[Drawing 5] It is the cross section of this unit.

[Drawing 6] It is a plugging chart in the door mirror using this unit.

[Drawing 7] It is the front view in the state where the stand was attached to the visor attachment member of the 3rd example constituted so that storing operation of a visor might be performed manually.

[Drawing 8] It is the plan of drawing 7 .

[Drawing 9] It is the IX-IX line cross section of drawing 7 .

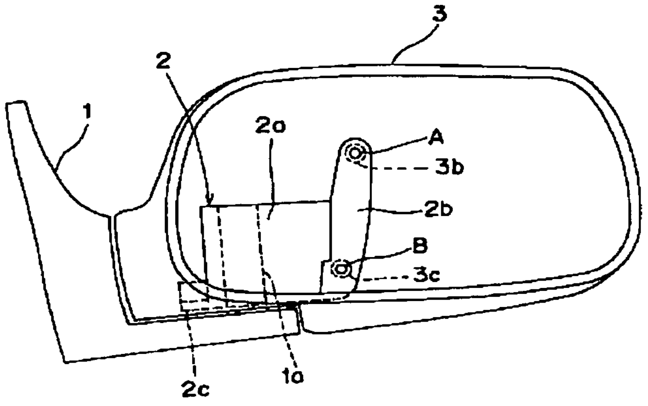
[Drawing 10] It is the front view showing the outline composition of the conventional door mirror.

[Drawing 11] It is the bottom plan view of the door mirror of drawing 10 .

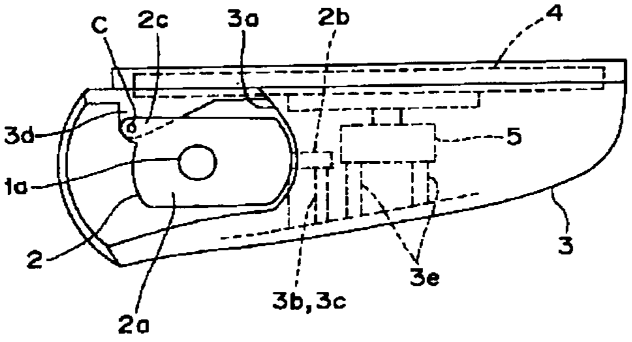
[Description of Notations]

1, 20, 41 Stay
1a, 21, 44 Rocking lever shaft
2, 22, and 40 visor attachment -- member
2a, 23b, 29, 45 Bearing
2b, 2c, 30a, 30b, 43a, 43b Attachment section
3 24 Visor
3a Opening
3b, 3c, 3d Attachment section
3e Boss
4 Mirror Main Part
5 32 Angle adjustment mechanism
23 42 This soma
23a, 42a Peripheral wall
23b, 42b Bottom wall
25 Covering
31 Reinforcing Rib
34 Hook
42c Drain hole
A, B, C Attaching hole (attaching position)

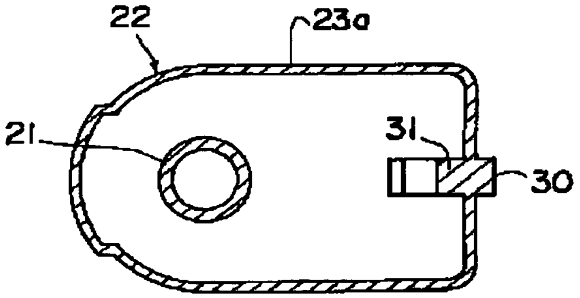
[Drawing 1]



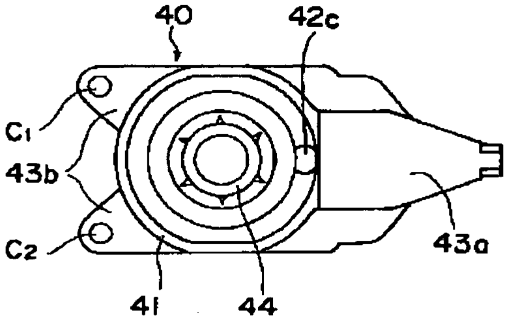
[Drawing 2]



[Drawing 4]



[Drawing 8]



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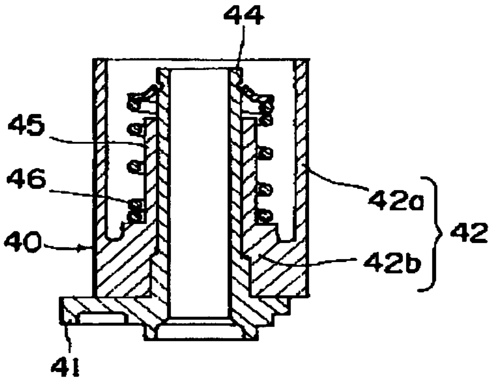

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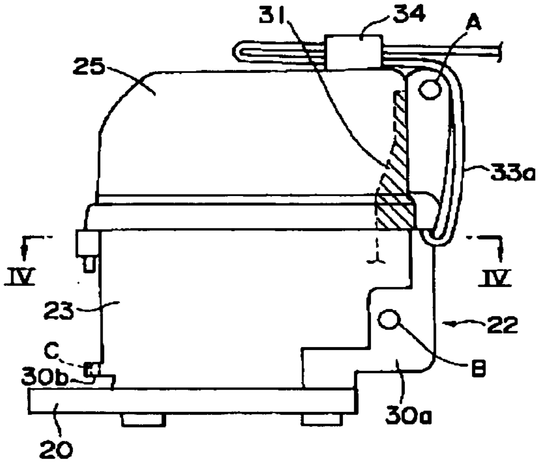

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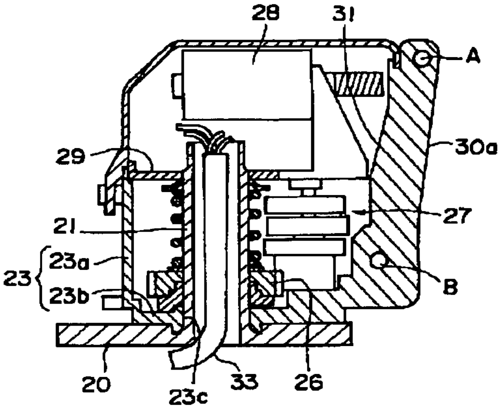
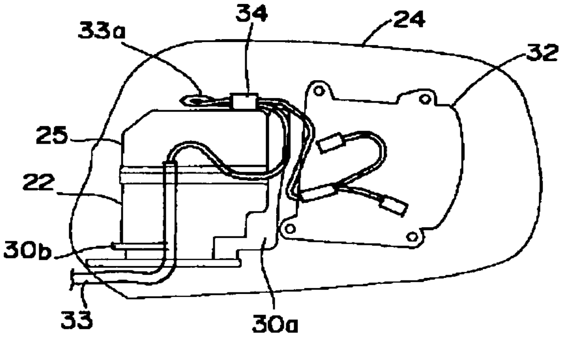
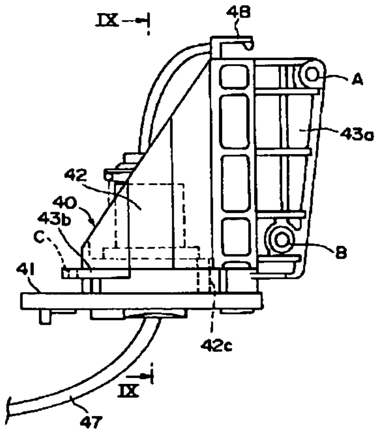


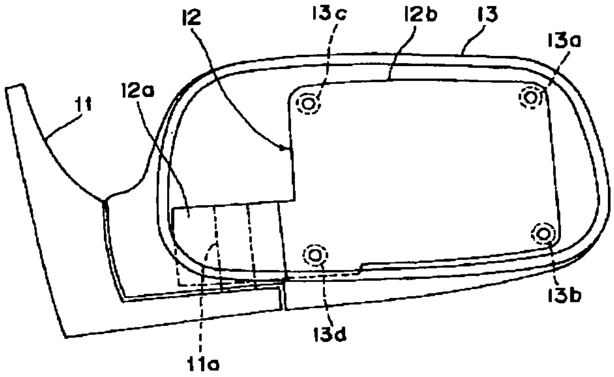
[Drawing 6]



[Drawing 7]



[Drawing 10]



[Drawing 11]